

What you should know about...

Smallpox

What is Smallpox?

- Smallpox is a serious, contagious, and sometimes fatal infectious disease caused by the variola virus.
- The name smallpox is derived from the Latin word for “spotted” and refers to the raised bumps that appear on the face and body of an infected person.
- There are two clinical forms of smallpox: Variola major is the severe and most common form of smallpox, with a more extensive rash and higher fever. Variola minor is a less common form of smallpox and a much less severe disease.

Who gets Smallpox?

- Humans are the only natural hosts of variola.
- Smallpox is not known to be transmitted by insects or animals.

How is Smallpox spread?

- Generally, direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another.
- Smallpox also can be spread through direct contact with infected bodily fluids or contaminated objects such as bedding or clothing. Rarely, smallpox has been spread by virus carried in the air in enclosed settings such as buildings, buses and trains.

What are symptoms of Smallpox?

- The first symptoms of smallpox include fever, malaise head and body aches, and sometimes vomiting.
- The fever is usually high, in the range of 101 to 104 Fahrenheit.
- A rash emerges first as small red spots on the tongue and in the mouth. These spots develop into sores that break open and spread large amounts of virus into the mouth and throat. At this time, the person becomes most contagious. Around the same time the sores in the mouth break down, a rash appears on the skin, starting on the face and spreading to the arms and legs and then to the hands and feet. Usually the rash spreads to all parts of the body within 24 hours. As the rash appears, the fever usually falls and the person may start to feel better.
- By the third day of the rash, the rash becomes raised bumps.
- By the fourth day, the bumps fill with thick, milky fluid and often have a depression in the center that looks like a bellybutton (This is a distinguishing

- characteristic of smallpox). Fever will often rise again at this time and remain high until scabs form over bumps. The bumps become pustules (sharply raised bumps that are round and firm to the touch, and feel like BB pellets embedded in the skin.) The pustules begin to form a crust and then scab.
- By the end of the second week after the rash appears, most of the sores have scabbed over. The scabs begin to fall off; leaving marks on the skin that eventually become pitted scars.
 - Most scabs will have fallen off three weeks after rash appears. The person is contagious to others until all of the scabs have fallen off.

How soon do symptoms occur?

- Exposure to the virus is followed by an incubation period during which people do not have any symptoms and may feel fine. This incubation period averages about 12 to 14 days but can range from 7 to 17 days.

What is treatment for Smallpox?

- Smallpox can be prevented through use of the smallpox vaccine.

What is the Smallpox vaccine and is it required?

- The smallpox vaccine helps the body develop immunity to smallpox.
- The smallpox vaccine is made from a virus called vaccinia, which is another “pox”-type virus related to smallpox but cannot cause smallpox.
- Routine vaccination of the American public stopped in 1972 after the disease was eradicated in the United States. However, in the aftermath of the events of September and October 2001, there is a heightened concern that the variola virus might be used as an agent of bioterrorism. For this reason, the U.S. government is taking precautions for dealing with a smallpox outbreak.
- Currently, the smallpox vaccine is not available for members of the general public. In the event of a smallpox outbreak, however, there is enough smallpox vaccine to vaccinate everyone who would need it.

What are the side effects and risks associated with the Smallpox vaccine?

- Most people experience normal, usually mild reactions that include a sore arm, fever and body aches. However, other people experience reactions ranging from serious to life-threatening.
- People most likely to have serious side effects are: people who have had, even once, skin conditions (especially eczema or atopic dermatitis) and people with weakened immune systems, such as those who have receive a transplant, are HIV positive, are receiving treatment for cancer, or are currently taking medications (such as steroids) that suppress the immune system. In addition, pregnant women and children younger than 12 should not get the vaccine. Also, people who have

been diagnosed by a doctor as having a heart condition with or without symptoms should not get the vaccine at this time.

How long is an infected person infectious to others?

- A person with smallpox is sometimes contagious with onset of fever, but the person is most contagious with the onset of a rash (approximately 7-10 days following rash onset). At this stage the infected person is usually very sick and is contagious until the last smallpox scab falls off.

Should an infected person be excluded from work or school?

- Yes, an infected person should stay home until the last smallpox scab falls off.

How can Smallpox be prevented?

- The only prevention for smallpox is vaccination.
- Smallpox vaccination provides protection for 3-5 years and is effective in preventing smallpox infection in 95% of those vaccinated.
- Anyone directly exposed to smallpox, regardless of health status, would be offered the smallpox vaccine because the risks associated with smallpox disease are far greater than those posed by the vaccine.

More about Smallpox

<http://www.bt.cdc.gov>